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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,950	02/20/2002	Olivier Matile	0503-1009	3030

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YOUNG & THOMPSON
745 SOUTH 23RD STREET 2ND FLOOR
ARLINGTON, VA 22202

EXAMINER

KASTLER, SCOTT R

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 09/05/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/077,950

Applicant(s)

MATILE, OLIVIER

Examiner

Scott Kastler

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Claim Language

The instant claims contain two terms in "mean-plus-function" format, "optical means" and "optical means of the multifocus type". These terms have been interpreted as follows:

Both of the above terms are defined at page 2, last line to page 3, line 14 and have been interpreted as meaning an optical device as described at this point in the specification.

Claim Objections

Claims 2, 4, 5 and 7 are objected to because of the following informalities: The above claims include terms which could lead to confusion in interpreting the claims as described below:

1. In claims 2, 4 and 5 the term "preferably" and description following this term render the claims unclear as to whether or not the claims are intended to be limited to the smaller range following the term "preferably" or not. For examination purposes, the term "preferably" and all description following this term have been treated as only optimal, but non-limiting examples of suitable optical means (claim 2), inert gases (claim 4) or assist gases (claim 5).

2. In claim 7, the term "typically" has again been treated as only an optimal, non-limiting example of workpiece thicknesses which would meet the requirements of the claim.

In each of the above cases, the claims should be amended to make them clear as to exactly what is intended to be covered by each claim.

Appropriate correction is requested.

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Faerber in view of WO'302. Faerber teaches laser cutting aluminum with a thickness of 2mm (see the example) with a cutting speed of between 1 and 10 m/min (see col. 2 lines 66-67) using a gas mixture containing hydrogen in an amount of 5-15% by volume (see col. 2 lines 41-42) and nitrogen as the inert gas (see col. 3 lines 30-32) showing all aspects of the above claims except the use of a "multifocus type" lens as the optical means for focusing the laser (Faerber teaches only a general lens device (2), but does not exclude the use of bifocal or multifocus lenses as the lens to be employed). WO'302 teaches that when laser cutting metals, in order to reduce slag adherence and improve cutting quality, it was known in the art at the time the invention was made to employ bifocal or multifocal lenses as the optical means for focusing the laser at different points (see both the abstract and claims for example). Because improved cutting quality is also desired in Faerber, motivation to include a multifocal type lens as taught by WO'302 to improve cutting quality, as the optical focusing means (2) required by Faerber, would have been a modification obvious to one of ordinary skill in the art at the time the invention was made.

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Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Each of Bertez et al and JP'385 are also cited as further examples of prior art laser cutting methods.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Kastler whose telephone number is (703) 308-2506. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (703) 308-3050. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.


Scott Kastler
Primary Examiner
Art Unit 1742

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